U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE
SUBCOMMITTEE ON ENERGY

Statement of Judy Biggert

The Impact of Federal Energy Efficiency and Renewable Energy R&D Programs

May 19, 2004

I want to welcome everyone to today's hearing to assess the impact and direction of federal energy efficiency and renewable energy research and development (R&D).

This hearing couldn't be more timely. Just this week, the average nationwide price of a gallon of gasoline rose above $2 for the first time ever.

This really should come as no surprise. It was three years ago this month that President Bush released his national energy policy in response to volatile and rising energy prices – three years ago. Two of the eight chapters of that policy document were dedicated to energy efficiency and renewable energy.

And three times in the last three years the House passed comprehensive energy legislation that greatly expands our use of energy efficiency and renewable energy to meet our growing energy challenges. The same, however, can not be said of the Senate, which hasn't even been able to take an up-or-down vote on the energy bill conference report because of procedural obstacles.

As a result, we have yet to benefit from a comprehensive energy policy. The United States still imports from foreign sources almost 60 percent of the oil we consume. Even if we increase foreign imports of oil or dip into the Strategic Petroleum Reserve, as some have suggested, we have no way to turn that oil into gasoline or diesel fuel, or get it to where it is needed most. We still have static pipeline capacity. We haven't built a large refinery in about 20 years, and we have half as many refineries as we did 30 years ago. Those refineries are operating at almost 100 percent capacity.

And that's just gasoline. I haven't even mentioned electricity or natural gas. In every case, the bottom line is this: we simply cannot meet today's energy needs with yesterday's energy infrastructure. No pun intended, but we're virtually in the dark ages when it comes to energy infrastructure. Unless we begin to address some of these fundamental problems, we're going to experience high and volatile energy prices every year – well into perpetuity.

One of the best, most effective ways to address such seemingly insurmountable challenges is through the use of technology – energy efficiency and renewable energy technologies.

In terms of energy efficiency, we are talking about technologies that deliver *more* goods and services for the *same* amount of energy. In our homes, that means more loads of clean laundry, or more bags of chilled groceries, without increasing the amount of energy we use. For our industry, that means increased production without increased energy consumption. For all of us, reducing energy use means lowering our energy costs, reducing our emissions of pollutants and greenhouse gases, and increasing our energy security. In this way, energy efficiency is a very *powerful* idea.

In terms of renewable energy, we are talking about technologies that allow us to derive energy from sources that can be replenished. During the last decade, renewable energy contributed substantially to the growth in U.S. energy production, outpacing all fuel sources except for nuclear energy. Despite this progress, renewable energy still only accounts for 2 percent of our electric generating capacity today. In other words, we still have a long way to go.

Renewable energy is a growing, global industry, and our international competitors are taking renewable energy R&D very seriously. Government investments in renewable energy technologies in Europe and Japan have meant growing market shares for wind and solar power generation equipment for those countries, while the U.S. market share is declining. As a nation, we can't afford to sit on the sidelines.

Americans want affordable energy and a clean and safe environment, and yet, because we've ignored technology, we act as though the two are mutually exclusive. That's not true of some of the witnesses we will hear from today. They recognized the multiple benefits of energy efficiency and renewable energy technologies. They invested in the necessary R&D, some independently, some in partnership with the federal government. But in all cases, they have success stories to tell, and insights to share as we assess the impact of federal energy efficiency and renewable energy R&D programs.

We must continue to invest in these R&D programs if we are to encourage the development and rapid deployment of energy efficiency and renewable energy technologies. But we must do more than that. We must take stock of where we've been and where we are. More importantly, we must figure out where we want to go, and determine if existing federal R&D programs can get us there. I know the distinguished panel assembled here will help us accomplish this today.

But first I'd like to turn to the subcommittee's distinguished ranking member, Mr. Larson, for his opening statement.

Statement from Ranking Member Larson

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Introduction of Witnesses

Chairman: I WOULD LIKE TO WELCOME OUR WITNESSES:

Mr. Steven Nadel is the Executive Director of the American Council for an Energy-Efficient Economy (ACEEE), a non-profit research organization that works on programs and policies to advance energy-efficient technologies and services.

NOW, I YIELD TO THE DISTINGUISHED MEMBER FROM NORTH CAROLINA, MR. MILLER to introduce Mr. Konove:

> ***Mr. Miller: [Mr. Paul Konove is President of Carolina Country Builders of Chatham County Inc., a company that specializes in custom solar home design and construction.]***

Ms. Vivian Loftness is Head of the School of Architecture at Carnegie-Mellon University. Her design and consulting work has led to the design and construction of numerous energy conserving buildings here and abroad.

Mr. John B. Carberry is Director of Environmental Technology for the DuPont Company in Wilmington, Delaware. His responsibilities include leading DuPont's efforts to find and use affordable renewable energy and energy efficiency technologies.

I NOW YIELD TO THE DISTINGUISHED CHAIRMAN OF THE SCIENCE COMMITTEE FROM NEW YORK, CHAIRMAN BOEHLERT, to introduce Mr. Smith:

Chairman Boehlert: [Mr. Peter Smith is President of the New York State Energy Research and Development Authority (NYSERDA).]

FINALLY, I WOULD LIKE TO INTRODUCE:

Mr. Daniel L. Sosland is executive director of Environment Northeast, a non-profit research and advocacy organization, working on energy efficiency and renewable energy, climate change and air quality issues.

Chairman: As our witnesses should know, spoken testimony is limited to five minutes each, after which the members of the Energy Subcommittee will have five minutes each to ask questions.

Welcome to you all.

We will begin with Mr. Nadel.